

SILICON-ON-INSULATOR LATCH-UP PULSE-RADIATION DETECTOR

Abstract

A radiation detector formed using silicon-on-insulator technology. The radiation detector includes a silicon layer formed on an insulating substrate, wherein the silicon layer includes a PNP structure, and a gate layer formed over the PNP structure, wherein the gate layer includes a PN gate. Latch-up occurs in the radiation detector only in response to incident radiation.